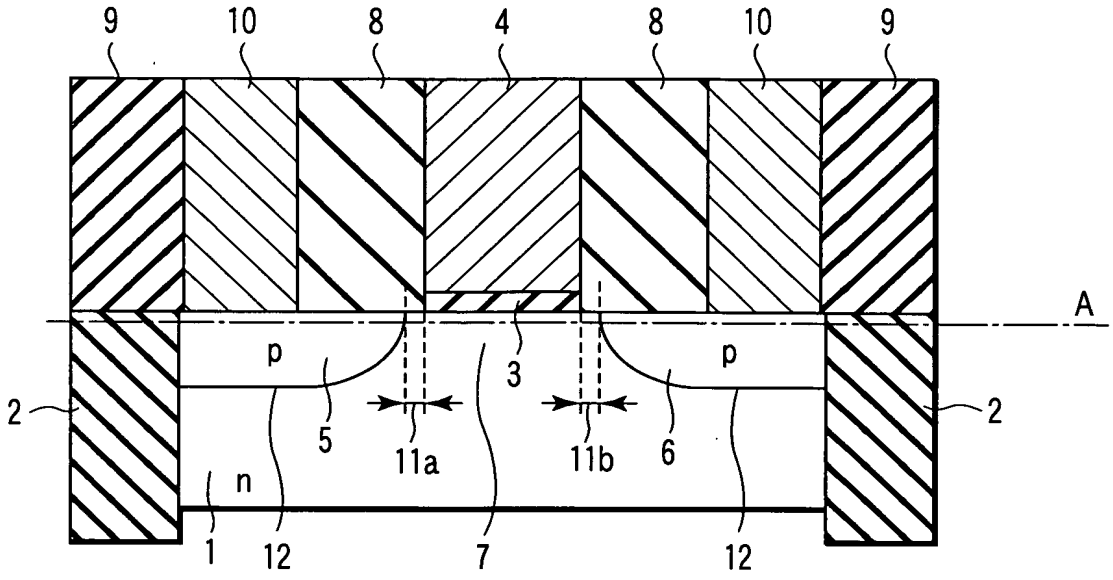

9
10
8
4
8
10
9
A
p
p
3
2
2
5
11a
11b
6
n
1
12
7
12

FIG. 1

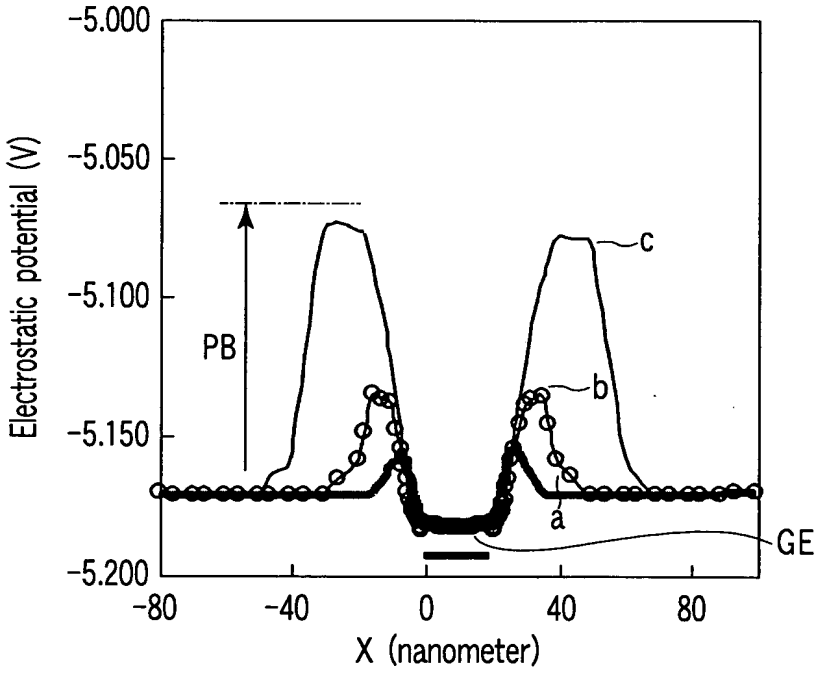

-5.000
-5.050
-5.100
-5.150
-5.200
Electrostatic potential (V)
PB
c
b
a
GE
-80
-40
0
40
80
X (nanometer)

FIG. 2

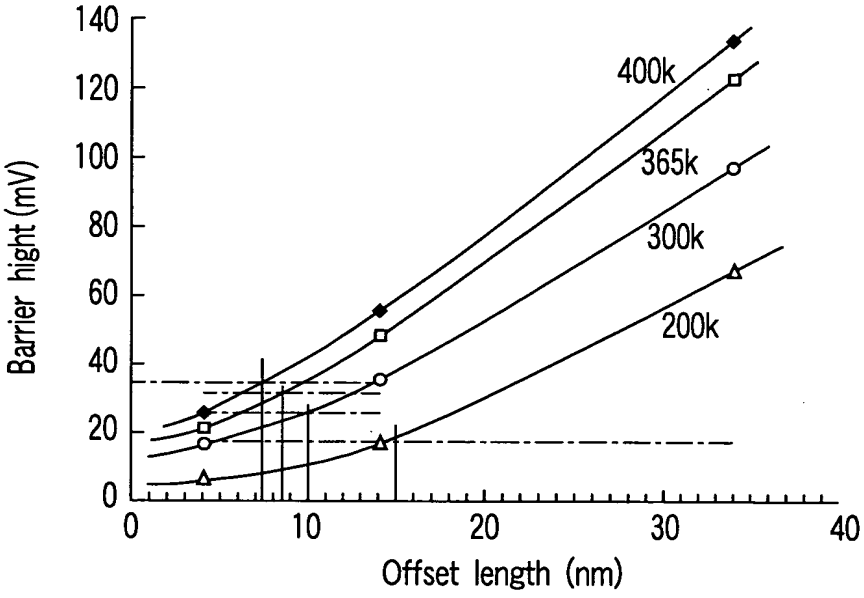

Barrier hight (mV)
140
120
100
80
60
40
20
0
0
10
20
30
40
Offset length (nm)
400k
365k
300k
200k

FIG. 3

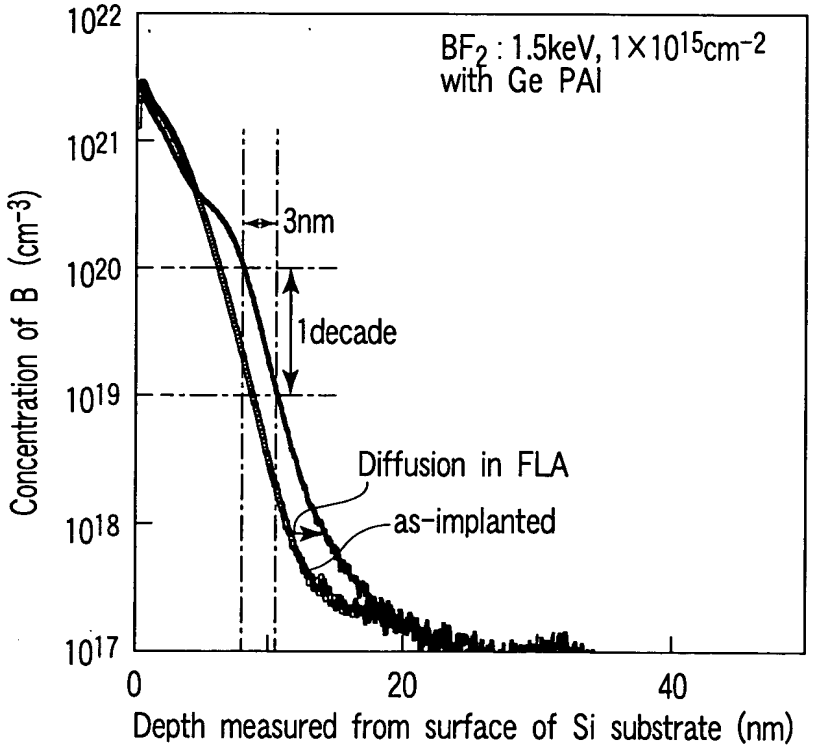

Concentration of B (cm-3)
10^22
10^21
10^20
10^19
10^18
10^17
0
20
40
Depth measured from surface of Si substrate (nm)
BF2 : 1.5keV, 1X10^15cm-2
with Ge PAI
3nm
1decade
Diffusion in FLA
as-implanted

FIG. 4

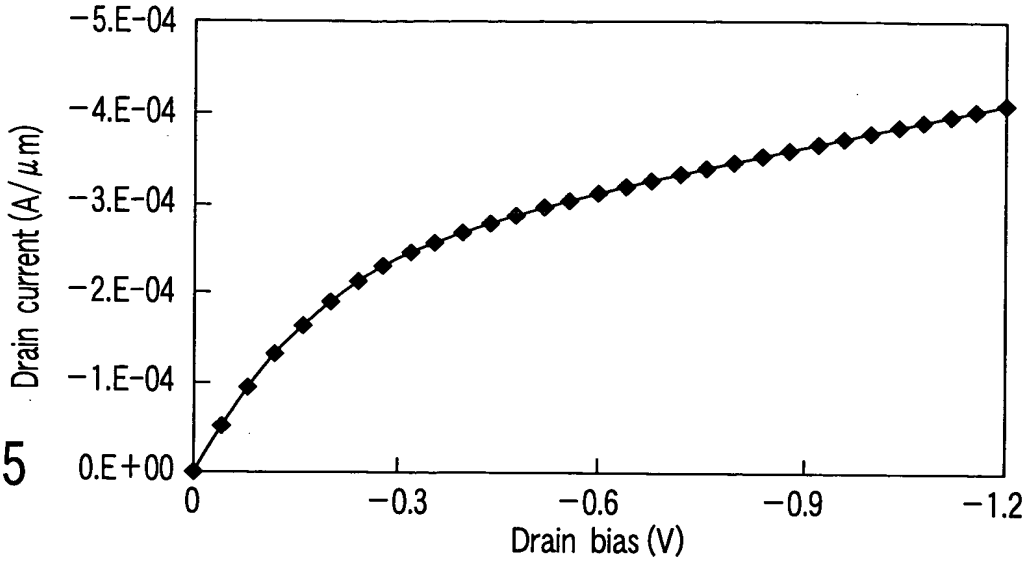


FIG. 5

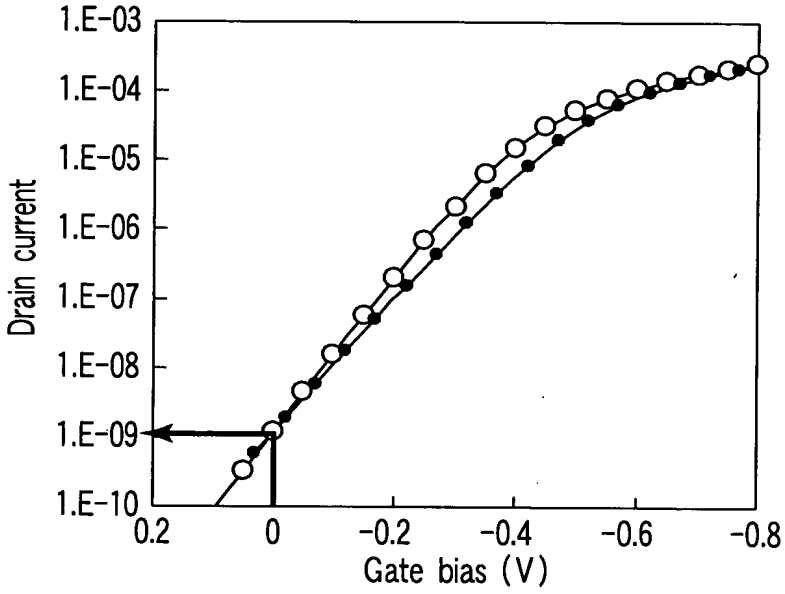


FIG. 6A

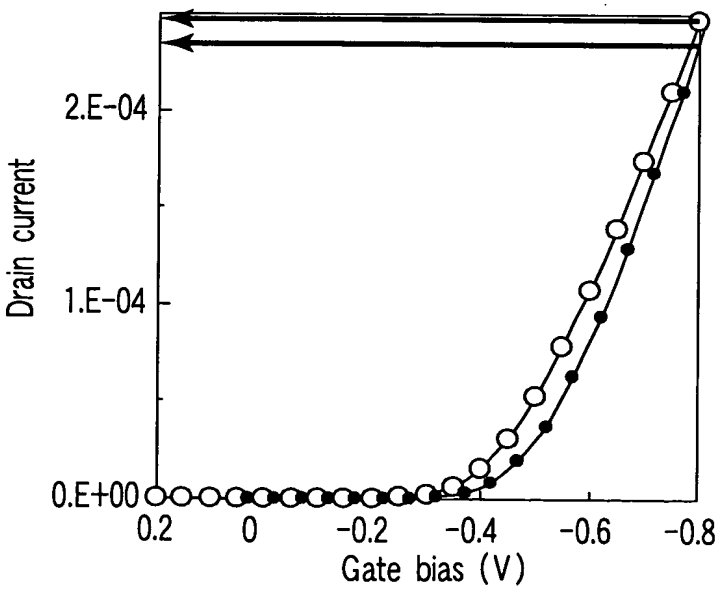


FIG. 6B

FIG. 7

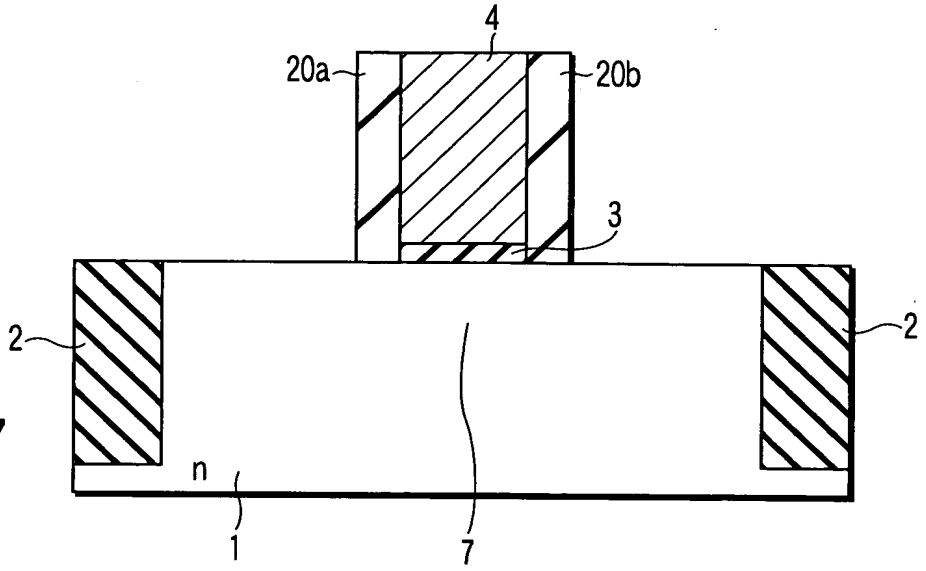


FIG. 8

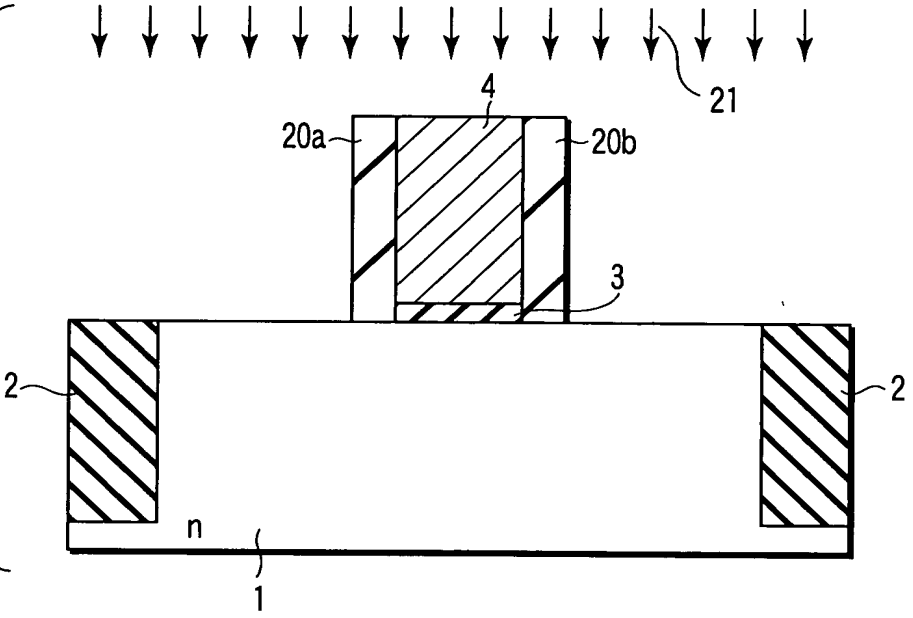
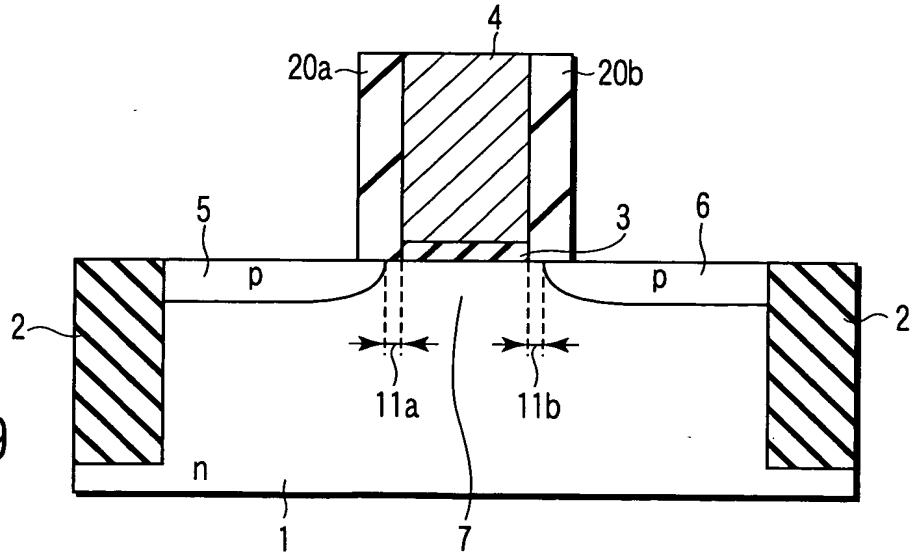


FIG. 9



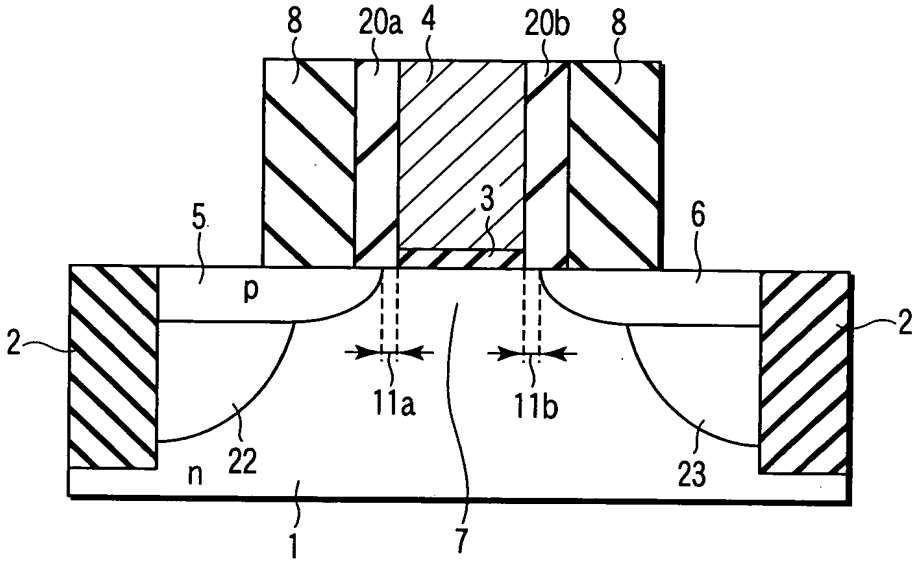

8
20a
4
20b
8
5
3
6
p
2
2
11a
11b
n
22
23
1
7

FIG. 10

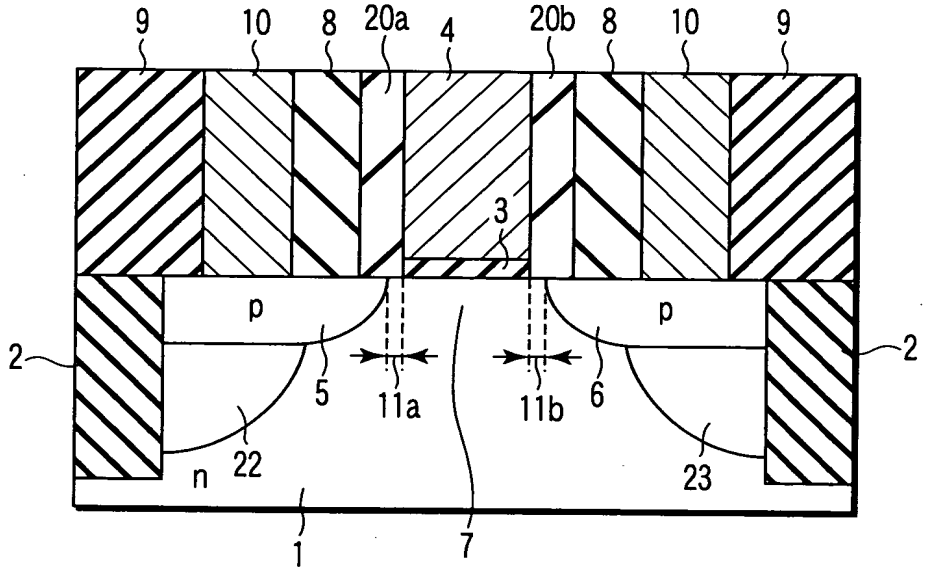

9
10
8
20a
4
20b
8
10
9
3
p
p
2
2
5
11a
11b
6
n
22
23
1
7

FIG. 11